

Application Serial No. 10/779,415
Reply to office action of January 18, 2007

PATENT
Docket: CU-3570

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Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) A communication system for transmitting a transmission signal in digital form from a transmitter to a receiver, wherein:

the transmitter comprises:

a modulation part modulating a carrier wave in accordance with the transmission signal according to frequency modulation;

a digital conversion part performing 1-bit quantization on a modulated signal obtained as a result of the modulation in the modulation part; and

the receiver comprises:

a reception part receiving the digital data transmitted from the transmission part; and

a demodulation part demodulating the digital data received by the reception part according to the frequency modulation,

wherein the digital conversion part of the transmitter includes a comparator and a flip-flop circuit, the comparator having a non-inverting input and a grounded inverting input, and
the digital conversion part performs the 1-bit quantization by inputting the

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modulated signal to the non-inverting input of the comparator, supplying an output of the comparator to the flip-flop circuit, and causing the flip-flop circuit to sample the output of the comparator at a rise time of a sampling clock signal supplied thereto.

2. (original) The communication system as claimed in claim 1, wherein:

the transmitter further comprises

an identification information insertion part inserting identification information into the transmission signal; and

the receiver further comprises:

an identification information extraction part extracting the inserted identification information from a demodulated signal obtained as a result of the demodulation in the demodulation part; and

an output control part enabling the demodulated signal to be output when the extracted identification information matches preset identification information, and disabling the demodulated signal from being output when the extracted identification information fails to match the preset identification information.

3. (currently amended) A communication device for transmitting a transmission signal in digital form, comprising:

a modulation part modulating a carrier wave in accordance with the transmission signal according to frequency modulation;

Application Serial No. 10/779,415
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a digital conversion part performing 1-bit quantization on a modulated signal obtained as a result of the modulation in the modulation part; and

a transmission part transmitting digital data into which the modulated signal is converted in the digital conversion part,

wherein the digital conversion part includes a comparator and a flip-flop circuit, the comparator having a non-inverting input and a grounded inverting input, and

the digital conversion part performs the 1-bit quantization by inputting the modulated signal to the non-inverting input of the comparator, supplying an output of the comparator to the flip-flop circuit, and causing the flip-flop circuit to sample the output of the comparator at a rise time of a sampling clock signal supplied thereto.

4. (original) The communication device as claimed in claim 3, further comprising an identification information insertion part inserting identification information into the transmission signal.

5. (original) The communication device as claimed in claim 4, wherein the transmitted digital data is received by a receiver; and the identification information is preset in the receiver.

6-8. (canceled)